

simplifying the arrangement so that only one fiber amplifier 168 is used, then the branch and delay portion 167 will not be required.

IN THE CLAIMS

Claims 1-105 (Canceled).

Claims 106-232 (New).

IN THE ABSTRACT

Please amend the Abstract as follows:

The light source unit [(16) comprises] includes a single wavelength oscillation light source [(160A)], a light generating portion [(160)] which has an optical modulator [(160C)] converting and emitting light from the light source into a pulse light, a light amplifying portion [(161)] made up of an optical fiber group [that] in which each fiber has a fiber amplifier to amplify the pulse light from the optical modulator, and a light amount controller [(16C)]. The light amount controller [(16C)] performs a step-by-step light amount control by individually turning on/off the light output of each fiber making up the optical fiber group, and a light amount control of controlling at least either of the frequency or the peak power of the emitted pulse light of the optical modulator. Accordingly, in addition to the step-by-step light amount control, fine adjustment of the light amount in between the steps becomes possible due to the control of at least either the frequency or the peak power of the pulse light, and if the set light amount is within a predetermined range, the light amount can be made to coincide with the set light amount.